

THE FAITH RESOURCES OF PROCESS THEOLOGY
FOR THE PREADOLESCENT IN CHRISTIAN EDUCATION

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To

Trisha

for her

patience

and care.

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ABSTRACT

This project has emerged out of concern for children in the ministry of the Christian community. The project focuses specifically on the preadolescent's growth in Christian faith. It is the writers contention that this ministry can be enhanced by incorporating the insights of Process Theology and Developmental Psychology into the Christian education process. The purpose of this project is to draw from Process Theology ideas and perspectives which are compatible with the findings of Developmental Psychology and propose learning experiences which would make these resources available to preadolescents. This endeavor is divided into three stages.

In the field of Developmental Psychology, the cognitive and affective development of preadolescents is explored to determine the configuration of their life experience. In this discussion the limits to the level of abstraction manageable by preadolescents is noted and two foci of needs are identified; social relationships and the natural or physical world.

The second stage explores Process Theology as relevant to the foci of preadolescent needs and interests as circumscribed by the cognitive abilities and limitations. In this direction the idea of "prehension", derived from Alfred North Whitehead, is developed to provide a new basis for considering reality. The theological implications of

this understanding are then applied to the Church, and translated into directions for education with preadolescents.

The final stage is to mold these directions into a learning experience. After a brief consideration of the nature of learning, a series of activities and their appropriate educational setting are described. It is through this educational setting that the resources of Process Theology, as circumscribed by the findings of Developmental Psychology, inform preadolescent growth in Christian faith.

CHAPTER I

DEFINITION AND ANALYSIS OF THE PROBLEM

THE NEED FOR MINISTRY WITH CHILDREN

Children require ministry in all its intensity and depth. As persons, children come to the Christian community with needs, interest, abilities, and limitations for growth. It is the responsibility of this community to enable the growth of persons in the Christian faith. In their world children struggle with meaning, with life issues pressing upon them. Within the context of these struggles the church witnesses to its faith. For through the resolution of life crises children develop a relationship to the world expressing their selfhood; perceptions and attitudes. This relationship conditions all subsequent development in faith. It is to this faith perspective that ministry is accountable.

Now, it is important to clarify the nature of 'Christian faith' to be developed before proceeding. Faith is a dynamic perspective. Accordingly James Fowler writes, "Faith is that knowing or constructing by which persons or communities recognize themselves as related to the ultimate

conditions of existence."¹ As life orienting faith must grow along with the self. Ministry in the Christian community must nurture the integration of faith. Norman Pittenger suggests.

The Christian stance, then, is a certain way of seeing and doing things which has its origin in and finds its support from certain attitudes and perspectives. To hold the Christian faith is to look at things with the age old tradition of which we are a part.²

Thus, the ministry to the growth of Christian faith refers to the integrative life vision.

ONE CONTEXT FOR MINISTRY

One context for ministry with children is education. Although ministry can take place in many settings I mean here that which takes place in an environment which is creatively constructed and learning oriented. It is a setting in which children explore life questions in the context of Christian faith and care. The context of education, however, can not be taken as the only context for ministry with children. Children too often miss the richness and relevance of the Christian faith by a second

¹James Fowler, "Towards a Developmental Perspective of Faith," Religious Education, LXIX (March-April 1974), 207.

²Norman Pittenger, Trying To Be A Christian (Philadelphia: Pilgrim Press, 1972), p. 17.

class status in the community of the church.³ We must always keep in mind the other contexts for ministry; worship, evangelism, and social witness to name a few.

Thus the Christian community must provide for children the best it can offer. For the ministry of education this means being informed by the present scholarship in educational theory as well as fresh theological and Biblical perspectives of faith. These investigations may translate themselves in terms of more qualified teacher training, more adequate equipment, well constructed curriculum, a creative environment, alternative time settings, or in the types of resources that inform all of these. Education in the church can not rest on the norms of the past. The community must seek out relevant and appropriate resources. Two resources which are available to the tasks of Christian education are Developmental Psychology and Process Theology.

RESOURCES FOR EDUCATION

Cognitive and Affective Development

The field of Development Psychology has for a long time been acknowledged by educators. It has been centrally

³Closed up in 'their' building, children are excluded from the central experience of the Church's self-constitution, worship. Ministry in the form of education is not a baby-sitting proposition. Nor is it the immersion of a child in dogma and doctrine or conversely simply awaiting the time when they can 'really' know the Christian faith.

influential in the curricula patterns of public education. Early in its history this field was explored by John Dewey.⁴ Recently, taking emphasis seminally from Jean Piaget,⁵ the field has become a major arena for experimentation. This research has uncovered patterns of child development in many areas.

Only recently have the findings of such scholarship been made available for education in the church. The work of Ronald Goldman has critically brought to the task of religious education an awareness of the stages of personal development. In making any faith resource available in a meaningful way, ministry must take seriously this research into the developmental patterns of children.

Process Theology

A second resource derives its impetus from the American Pragmatist school and the metaphysical scheme of Alfred North Whitehead. Process thought is now being developed into a vital tool for the exploration and proclamation of the Christian faith. As the implications for Christian theology are worked out, Process Theology is becoming available to the life issues of the Christian community. Process thought is primarily a view of the

⁴ John Dewey, How We Think (New York: Heath, 1910).

⁵ Jean Piaget, Six Psychological Studies (New York: Random House, 1967).

nature of reality. It provides a new context within which Christian theology can take place. It is my contention that Process Theology is a viable resource for ministry to children in education.

STATEMENT OF THE PROBLEM AND PROPOSAL

One task then for Christian ministry with children is adequately responding to these resources for faith development. To bring together these concerns, I construe the basic problem of this project to be making available to the ministry of education the resource of Process Theology and taking seriously Developmental Psychology. Therefore, I intend to draw from Process Theology the relevant and significant ideas and perspectives for the growth of Christian faith among preadolescents in light of Developmental Psychology, and then to show how these can be applied in an educational setting. Preadolescence will be considered to include fifth and sixth grade children.

SIGNIFICANCE OF UNDERTAKING

One might consider three factors which may enlighten the appropriateness and value of this aim. The first is to consider preadolescence as a model stage. Essentially it is a stage of transition and preparation. While retaining the habits of concrete thinking of childhood, the pre-adolescent is also building the basis on which the crisis

of adolescence will form. A central issue of this period is dualism, the disjoining of secular and religious experience. This dualism must be dealt with at this stage. If it is not resolved into a unified perspective on experience the basis for subsequent theologizing will be weak.⁶ Thus, preadolescence represents a significant challenge both to theology and psychology for the ministry of education.

A second factor to consider is the lack of attention to process thought in the local church. In education in general this theology has made few inroads. It has remained somewhat in the scholars' territory. In particular, Process Theology has not realized its potential as a resource for children. Related to the issue of dualism, for example, Process Theology offers a significant vision. Also for a host of other life issues, it holds informative and illuminative models and images. In providing the best in scholarship, ministry can gain from reference to these perspectives.

The influence of Process Theology as a resource for children will largely depend on how it can be accountable to Developmental Psychology. Thus, the third value of this project is the encounter of process thought and developmental

⁶The rejection of religion on behalf of science is a common occurrence. One can consider the problem of the significant loss of attendance in the church schools after sixth grade.

findings. Developmental Psychology in this way enables education to be accountable to the needs and abilities of children. Such accountability seeks to avoid the premature or coercive use of static concepts and irrelevant abstractions. Whitehead considers the downfall of religion and education the fostering of 'inert ideas', "...above all things we must beware of what I call inert ideas--that is to say, ideas that are merely received into the mind without being utilized or tested, or thrown into fresh combinations."⁷ Thus a dialogue of the process vision with the insights of Developmental Psychology is a central value to this project.

DELIMITATIONS

The aim and duration of this project exclude certain possible courses of investigation as well as making certain assumptions. These delimitations are centered in two areas of this project.

Within the area of Developmental Psychology the validity of the findings is certainly assumed. This means that it is outside the boundaries of this project to test these insights. Secondly, it is also outside the interests of this project to justify the compatibility of Developmental

⁷Alfred North Whitehead, Aims of Education (New York: Free Press, 1957), p. 14.

Psychology with Christianity. A major assumption then is that the principle structures for learning are the same within the Christian community and without. Ronald Goldman has supported this assumption, stating "...religious thinking is no different in mode and method from non-religious thinking."⁸ Finally, it is conceded that the application of Developmental Psychologies findings is limited to the culture from which its data are drawn. It will be important to remember that we are primarily discussing the Western world.

In the areas of Process Theology the attempt to explicate the adequacy or coherence of Whitehead's metaphysics is too extensive for this project. Secondly, as with Developmental Psychology, it is outside the limits of this project to justify the appropriateness of Process Thought for Christian faith. This task has been well explicated in the work of John B. Cobb Jr.⁹ and Daniel Day Williams,¹⁰ and need not be considered here.

⁸ Ronald Goldman, Religious Thinking from Childhood to Adolescence (New York: Seabury Press, 1964), p. 3.

⁹ John B. Cobb, Jr., A Christian Natural Theology (Philadelphia: Westminster Press, 1965).

¹⁰ Daniel Day Williams, The Spirit and the Forms of Love (New York: Harper & Row, 1968).

RELATED RESEARCH

The research related to this undertaking is diverse. Very few attempts have related process thinking and education. Work that is directly relevant is fairly general in nature. Whitehead's own work, Aims of Education,¹¹ deals primarily with the goals and assumptions of education. In addition basic orientation and direction are provided by Randolph Crump Miller in Language Gap and God,¹² and in his articles "Whitehead and Religious Education",¹³ and "Process Thought and Religious Education".¹⁴ Involved in this same task is Norman Pittenger's article "Process Theology and Christian Education",¹⁵ and his book Trying to be a Christian.¹⁶ In an attempt to be more specific Gloria Durka and Joanmarie Smith have proposed a model for Christian education in a booklet entitled "Modeling in Religious

¹¹Whitehead.

¹²Randolph Crump Miller, Learning Gap and God (Philadelphia: Pilgrim Press, 1970).

¹³Randolph Crump Miller, "Whitehead and Religious Education", Religious Education, LXVIII (May-June 1973), 315-322.

¹⁴Randolph Crump Miller, "Process Theology and Religious Education", Anglican Theological Review, LXVIII (Summer 1975).

¹⁵Norman Pittenger, "Process Theology and Religious Education", Religious Education, LXVIII (May-June 1973), 307-314.

¹⁶Pittenger, Trying To Be A Christian.

Education".¹⁷ Their model is a consideration of the stage theory of Developmental Psychology in light of process thought.

On process thought itself, the work is overwhelming and still forthcoming. Of Whitehead, I will refer to his work in Science and the Modern World¹⁸ and to his metaphysic as explained by Ivor LeClerc in Whitehead's Metaphysic.¹⁹ I will deal primarily with the theological implications of Whitehead as delineated by Daniel Day Williams in The Spirit and the Forms of Love.²⁰

In the field of Developmental Psychology, there is a wealth of material and research. Much of the work of Jean Piaget has been standardized and is widely restated. The application by Christian educators is less extensive, yet still important. Centrally, Ronald Goldman's work in the English public schools religious education program stands out. His book, Readiness for Religion,²¹ is a

¹⁷Gloria Durka and Joanmarie Smith, "Modeling in Religious Education" (Prepared for the annual meeting of the Association of Professors and Researchers in Religious Education, Philadelphia, November 21-23, 1975).

¹⁸Alfred North Whitehead, Science and the Modern World (New York: Free Press, 1967).

¹⁹Ivor LeClerc, Whitehead's Metaphysics (London: Allen and Unwin, 1965).

²⁰Williams.

²¹Ronald Goldman, Readiness for Religion (New York: Harper & Row, 1968).

landmark in this application. Andre' Godin's article, "Some Developmental Tasks in Religious Education",²² is another source exploring the implications of developmental research for Christian growth. Finally, Jerome Bruner's work is significant, also, for its qualifications and revision of developmental findings.²³

PROCEDURAL OUTLINE OF PROJECT

The following design represents the course of thought of the project. The first task will be to present a summary of the developmental findings about the needs, interests, abilities and limitations of preadolescents. The object will be to formulate a "starting point"²⁴ for Christian education.

The second task will be to discuss Process Theology as relevant to the cognitive and affective development of preadolescents. This objective will necessarily include a summary of the appropriate aspects of Whitehead's metaphysic as well as its implications for the Christian faith. Through

²²Andre' Godin, "Some Developmental Tasks in Religious Education", in Research on Religious Development (New York: Hawthorne, 1971).

²³Jerome S. Bruner, The Process of Education (New York: Vintage, 1963), and Jerome S. Bruner, Towards a Theory of Instruction (Cambridge: Harvard University Press, 1966).

²⁴Richard Reichart. A Learning Process for Religious Education (Dayton: Pflaum, 1975), Chapter 3.

this discussion, the directions in which Process Theology can be used as a resource will be explored.

The description of learning experiences which make available these insights is the third task. Thus in the final chapter a proposed learning environment will be presented. Included will be a consideration of the nature of learning, a statement of the main ideas derived from Process Theology as relevant to the learning context, a list of the goals and objectives of the learning experience, and a summary of various learning activities and their setting. This chapter will also include a final conclusion as to the results of this project.

CHAPTER II

THE PREADOLESCENT AND DEVELOPMENTAL PSYCHOLOGY

INTRODUCTION

Children manifest certain abilities and limitations which are focused in areas of need and interest. It appears that there is a progression or development in the content and configuration of these capacities. The task of developmental psychology has been to observe the behavior of children and evaluate the dynamics and stages of growth. Systems are then developed which attempt to illuminate the capabilities at given periods of development. Within these systems the ten and eleven year old period, which I have termed preadolescence, is the specific group that shall be considered here.

The preadolescent is an exciting, explosive, and inquisitive character. His or her abilities and skills are greatly expanding. Cognitive limits are dropping quickly, yet childish habits still cling on. The world of nature and people is very intriguing and religion is a perplexing explanation of both. Support through peer relations is an emerging need of this age. It is also a

relatively calm period of stability before the crisis of adolescence. For the preadolescents, specific abilities and limitations, as well as needs and interests emerge which constitute the possible life questions and issues, and skills for dealing with them.

This chapter is divided into three main parts. The two that follow will treat the features of preadolescence just noted. The third will serve as a transition to Chapter III.

The first part will be a consideration of the field of cognitive abilities and limitations. If we are to deal with concepts and faith perspectives we will need to consider the cognitive capabilities for organizing thought and guiding perception. This part will include a working definition of cognition and a review of its dynamics as presented by Jerome Bruner, Jean Piaget, Ronald Goldman, and André Godin. Unfortunately, Piaget's work in epistemology is considered by many to be inadequate, while his descriptive work of stages is well accepted.¹ Bruner and

¹While Piaget's descriptive system is accepted, his understanding of operations does not explain why growth happens. See Jerome S. Bruner's Towards a Theory of Instruction (Cambridge: Harvard University Press, 1966), p. 7; and Paul Mussen, John Janeway Conger, and Jerome Kagan, Child Development and Personality (New York: Harper & Row, 1969), p. 456.

others have provided a more adequate conception of the dynamics of growth which can clarify Piaget's stages. This will help to draw more valid conclusions as to the capacities of preadolescents. We therefore will consider both the dynamics of development and the stages which Piaget has described. Finally this part will include the import of these characteristics for traditional religious thinking as delineated by Goldman and Godin.

The second part will deal with the personal and social, needs and interests of preadolescence, termed affective development. Here, two foci will be treated. One is the sphere of peer or social relationships. As cognitive development has stages, so affective growth has a progression of emergent needs and interests. These constitute the lively possible world of preadolescence and must be considered in constructing a responsible environment and developing appropriate resources for Christian education.

Finally, in the third part, this discussion will culminate in defining a "starting point" for considering concepts, methods and criteria for a Process Theology response. In its development of themes and activities this section will surface areas of need to which process thought should respond, and it will suggest appropriate ways of approaching those needs. With these goals in mind we can proceed to consider the area of cognitive growth.

COGNITIVE ABILITIES AND LIMITATIONS

As has been suggested, the area of cognitive abilities and limitations is divided into two concerns, the dynamics of growth and the descriptive stages. Bruner's conception of growth provides a backdrop to Piaget's stages. At the outset, however, a working definition of cognition is necessary.

The word cognition refers to the interpretation of sensory events, the understanding of words and numbers, the ability to manipulate these symbols in thinking, reasoning, and the solving of problems and acquisition of belief's about the environment.²

Bruner's Dynamics of Growth

To begin then, the first aspects of the cognitive process to be considered are the dynamics of growth. Jerome Bruner has delineated a system of dynamics which underlie changes in cognitive abilities. His epistemological scheme is directly related to the task of education and consequently lays stress on the learning process itself. Here we shall consider his scheme for its illumination of the developmental process.

The 'design features' by which the cognitive abilities of persons operate are "remoteness and arbitrariness". Although focused in the lingual phase of

²Mussen, Conger, and Kagan, p. 429.

growth, these two features represent the basic dynamic upon which cognition revolves. Considering our actual participation in the moment to moment experience of the world, then, both remoteness and arbitrariness lift up the process of cognition through individuation or separation from immediate experience. This is the process of perceiving the world as something distinct from the self. Whitehead, too, draws heavily on this feature of abstracting from direct experience as a basis for mathematics and science. Remote and arbitrary representations, "...are expressible without reference to those particular relations or to those particular relata which occur in that particular occasion of experience."³ Thus, remoteness refers to the mental distance from the object or event, and the feature of arbitrariness denotes that the label is not essential to the event in its immediate present.

These features underlie the process of development. Bruner contends that growth then is the process of mastering techniques which realize these features in systematic ways. He uses the term technologies for these skills or systems. A technology is "a means for simultanizing regularities in experience into images that stand for events in the way that pictures do...technology of translating experience into a symbol system that can be operated upon

³ Alfred North Whitehead, Science and the Modern World (New York: Free Press, 1967), p. 24.

by rules of transformation that greatly increase the possible range of problem solving."⁴ A technology then is a way of organizing experience. Bruner posits three technologies, the 'enactive', 'iconic', and 'symbolic'. These are the key contributions which shall help relate Bruner's epistemology to Piaget's work.

















The 'enactive' technology emphasizes the importance for the process of cognition of acting on the world. This is represented in the experience of "what can I do with the object?". Thus the focus is on appropriate motor response. The object or experience is not represented or pictured, but depends on the action. Unlike many, Bruner includes this process of action within his system of cognition. It therefore becomes an alternative for education and learning throughout life.

The 'iconic' technology is action on the world through imagery. "Iconic representation summarizes events by the selective organization of percepts and of images, by spacial, temporal, and qualitative structures of the perceptual field and their transformed images."⁵ 'Iconic' images are autonomous of the actual event unlike the 'enactive'. Images 'stand for' events. They are not the

⁴Jerome S. Bruner, "The Course of Cognitive Growth," in Contemporary Issues in Educational Psychology (Boston: Allyn and Bacon, 1970), p. 306.

⁵Ibid., p. 298.

immediate experience. Images copy the experience but are unable to abstract the ordering system and therefore unable to transpose. An example of this would be the serial ordering of glasses by width and height in a four by four pattern of ascending size (see illustration below). With iconic capabilities one could copy the pattern. However, if the direction were reversed iconic technology would not enable

	1	2	3	4
A				
B				
C				
D				

If D-1 placed at A-4 the iconic technology would not refill out pattern going opposite direction.

a person to transpose the pattern. Iconic technology does represent a further step in the dynamic of remoteness and arbitrariness. Out of the actual event the immediacy of the occasion is lost.

The next step is the 'symbolic'. This technology represents the use of language to construct models of the world. Language is the final one of Bruner's techniques for reflection upon immediate experience. Since preadolescents are growing into this technology, it will be considered in more detail.

The design features are again represented here in three levels of abstraction, names concepts and rules. Names are simple symbols. They are substitutes for objects.

More remote and arbitrary than images, they have less proximity to actual experience. The second level is that of concepts. Concepts deal with the common characteristics of symbols and are thus "names for groups of events, objects, or experiences."⁶ They represent the structures of events. Later, in the context of Piaget's system, three ways of concept sorting will be seen. The third level of abstraction represented in language is the rule. Rules or principles express the relations of concepts. A basic structure is thus represented as highly abstracted from immediate experience. This level is no longer dealing with objects or events but with abstracted principles. Preadolescents use rules to a limited degree. Piaget is specific as to the degree.

Piaget's Descriptive Work

Our second concern in cognitive abilities and limitations is the descriptive work of Jean Piaget. While growth is on a continuum, it is helpful to speak of gradations or stages. Whitehead also respects the progression of ability, asserting "...that different subjects and modes of study should be undertaken by pupils at fitting times when they have reached the proper stage of mental growth."⁷

⁶Mussen, Conger, and Kagan, p. 429.

⁷Alfred North Whitehead, Aims of Education (New York: Free Press, 1957), p. 27.

As we have seen, the design feature in Bruner's system underlies these stages and gives rise to the quantum effect of enactive, iconic and symbolic technologies. In his research, Piaget has found that the mental processes of children exhibit patterns of abilities and limits. Out of these he has provided an extremely helpful formal description of the thinking that children exhibit at each stage of development. It is our purpose, here, to understand the characteristics of cognition in preadolescence in Piaget's system.

Piaget's basic organizing concept for the stages of growth is termed 'operations'. An operation is an action which is 'reversible and internalized'. The quality of reversibility is held in the mathematical or logical sense, i.e., an operation of subtraction can be reversed through an operation of addition ($5-3=2$, $3+2=5$). "Internalized" refers to the feature of remoteness and arbitrariness in the mental process. "Roughly, an operation is a means of getting data about the real world into the mind and there transforming them so they can be organized and used selectively in the solution of problems."⁸ Seen as an explanation of growth, "operations" are inadequate. Seen as a basis for describing capabilities, it provides insight. Piaget posits four stages of operational activity; sensorimotor, pre-operational, concrete-operational and formal

⁸Jerome S. Bruner, The Process of Education (New York: Vintage, 1963), p. 35.

operations. As we shall see these have clear referents in Bruner's three technologies. Let us consider these, laying stress on the concrete operations which align with the period of preadolescence.

The first stage is the sensorimotor world of physical activity, approximately 0-2 years. This stage witnesses Bruner's enactive technology. We are dealing here with a child who can not reverse operations, except physically, and who is at the lowest level of internalization. Little consideration need be given to this level for our purpose.

Around the ages 2-7 the second stage, preoperational, is predominant. Here again operations are non-reversible. The child can not deal with the part and the whole simultaneously. Thus like Bruner, Piaget finds this stage is characteristically iconic and deals in a world of images and fantasy. Functional categorization is high at this stage, and it is manifest in three types. "Egocentric functionalism" is a primitive form which evaluates things according to what one can do with them, it carries the enactive into structured patterns. "Functional relational" concepts focus on the relation of objects for classification. An example would be a match and a pipe. The third type is "functional locational" which groups concepts by common location, such as farm animals. The pre-operational stage is still prior to real operations.

The third stage and the focus of preadolescence is "concrete operations." This new stage brings us to internalized operations. Apart from the object the mind now is able to use symbols; replacing the event with symbols instead of images. This opens up a new level of capabilities for patterning relationships and representing the world. We witness descriptively then what Bruner has called 'remoteness' in internalized structures. Here Piaget lends accuracy to the degrees of remoteness and arbitrariness which Bruner has abstracted. This symbolic technology although not completely mobilized is another step in being detached from immediacy and relating abstract data.

In addition operations are now reversible. This is represented in three related capacities. First, a child at this stage is able to deal simultaneously with the whole and its parts. When dealing with a subdivision of a unit, this child can not only relate the parts (black beads to white beads) but also relate one part to the whole (black beads to all beads). The child has thus been able to cope mentally with two systems of data simultaneously in reversing a mental operation.

This leads to the second capacity of 'conservation' in which mass can be retained without loss despite appearance of shape. The usual example is of a quantity of water in a glass being poured into a differently shaped glass. While retaining its volume its shape does change. The child is

able to rely on a principle of patterned relationships as symbols with contrasting visible experience. In pre-operational thinking the volume would have been viewed as changing. Symbols to this degree now predominate over the object in concrete operational thought.

It follows, thirdly, that methods of categorizing will evidence a change. We find in concrete operations a gradual move to superordinate and analytic categorization as opposed to functional. Class inclusion, or dealing with the part and the whole, leads to greater use of superordinate groupings of symbols as objects evidence shared attributes, i.e., fruit. Analytic categorization, identifying by a public component, i.e., all animals with four legs, is also attestation of a greater release from the object. These new tools for dealing with the world are a giant step. As we will detail later, this is a period of concrete operations and preadolescents remain confused and bound to the concrete object world of childhood.

The last of Piaget's stages is that of formal operations with an approximate beginning at age twelve. By 'formal', Piaget is identifying the abstract and propositional character of operations at this level of cognition. The symbols now used are released from the concrete to a greater degree. In Bruner's terms the technology of symbol has reached greater potential in its arbitrariness and remoteness from the world of immediate experience, yet with

much more revealing accuracy to its referent. The individual can even internally consider non-experienced alternatives.

It may be noted here as a clarification of Piaget's research, that he has introduced the concept of 'vertical decalage'. By this he observes that verbal capacity is not equivalent to functional ability. In other words although a child in stage two may verbalize or conceptualize as a child in stage four does, he or she may still be able to act intuitively out of the same principles. This supports Bruner's idea that we act out of these three technologies throughout life. While growth requires development in each successively, we may still handle data in a simpler technology. Therefore, there are different ways of knowing or internalizing experience. For preadolescence this may be an important concept for getting free of concrete data into more wholistic views of experience.

As we have seen, preadolescence is based in the concrete operations stage. Preadolescence is not identical with this stage for it is edging into formal operations. The tension of this mid-point is the context of pre-adolescence. It is therefore necessary to clarify some characteristics of preadolescence. The transition is basically blocked by the child's continual reference to the concrete. According to Bruner, immediate present reality allures attention, facts criticize our thoughts. There

needs to be a distance of patience between our situation and our reflection on it. The danger of preadolescent thought is the concretization of propositional symbols, forgetting this distance. Abstractions are confused with the event. Thus, concepts and patterns become the objects themselves or become entirely new objects. Religion is the church facility, love is marriage, faith is a belief, and events are particles or things.

Although the patterning of these facts is expanded through the superordinate and analytic categories, this age is characterized by its realistic approach. For the preadolescent, reasoning is from one specific to another. Unlike the propositional stage, hypothesizing from one field to another is not yet a possibility. Whatever the concepts are, formulation and expression must take account of the danger of being beguiled from their abstract vantage point and entangled in the concrete conglomerate of objects.

Within the context of this transition there are four further characteristics of thinking at this stage. First, the preadolescent views causality in mechanistic or realistic terms. Primarily evidenced in a two dimensional world, this understanding again represents the effect of a simple material world. Unlike the child of pre-operational capabilities the preadolescent has moved past mere syncretism or juxtaposition. There is meaning and correlation between the ordering or progression of events.

Yet this relation of events is deterministic and outward. So while witnessing a growth in the direction of appreciating the progression of events, the preadolescent has not yet apprehended the subjectivity or inwardness of causality.

The difficulty in understanding vast movements or spans of time in history is another block in the transition. Piaget terms this second characteristic 'isolation in time'. This limitation to small spans of time makes a chronology of history a non-possibility. This does not mean that history is abandoned. Emphasis on specific time and place settings and appreciation of similarities and differences of cultures are central to this age. The ancient and the primal are fascinating to the preadolescent, i.e., medieval knights and dinosaurs.

Thirdly, the use of 'relational terms' for the preadolescent has become relative, not absolute. The child is now able to use terms like light and dark at different segments on a continuum of shades. Thus light maybe a shade of brown which is distinguished from a darker shade of brown. Light is released from always being white or tan or yellow. Big may be a molecule relative to an atom. Small may be an elephant relative to the sun. This capability makes possible the more accurate and adequate description and consideration of aspects of an event or object. This is one way in which the transition to formal

operations is taking place.

A final characteristic of preadolescence is the child's move from the world of self into greater appreciation and response to the world of the other. Piaget speaks in terms of the child's move past 'egocentrism.' As the child moves beyond the assumption that the other child knows what he or she knows, he or she must make more explicit the self-world. Communication becomes truly an expression from one to another. Through this process of individuation the child begins to see the separation of the world for itself. We have witnessed this in the child's new ability to see realistic connections in the world. This new capacity is therefore significant both for the social world of self and other and for the natural world of activities.

This completes our review of Piaget's observations regarding the abilities and limitations of preadolescence. I have attempted to clarify this age by briefly presenting the preceeding and subsequent stages. Preadolescence has been identified as a period based primarily in the stage of concrete operations yet reaching toward the abilities of formal operations. The draw of present reality and the danger of concretization were suggested as witness to this tension. Finally, we considered four characteristics of preadolescence. It is now before us to consider how this period is manifest in the abilities and limits for

traditional religious thinking.

Religious Thinking

What does the structure of concrete operations look like in traditional religious thinking? To answer this question primary reliance will be placed on Ronald Goldman and Andre' Godin. Their research has attempted to show the effect of developing modes of thought on this sphere of thinking.

The concrete operational stage translates itself into what Goldman calls the 'sub-religious' stage. This stage finds basic orientation in the material, physical, and realistic world. It is preceeded by a period of fantasy. In this pre-religious stage, logical categories are not forced on the world and God. It is basically a 'fairy tale' view of reality. Preadolescence is followed by a 'personal' religious stage in which personal identity and understanding are at stake. Here, more satisfying abstract, logical connections can be made.

It is helpful to characterize the religious concepts and problems of preadolescence in relation to various themes. Let us begin first with the preadolescent tendency toward literalism with scripture. The Bible for preadolescents is an honored and true book. Although multiple authorship may be accepted, it is still literally a true representation of God and history. This literalism obviously flows from the

concrete way in which these stories are interpreted, leaving little room for figurative, analogical, or symbolic thinking. It is from this that preadolescents draw their conception of God.

With the move from fantasy to realism the preadolescent also moves from a superhuman to a supernatural conception of God. God is directly involved in causation in a materialistic world. Goldman has termed the mode of God's action, as conceived by preadolescents, 'technical artificialism'. Technical artificialism is, "...a stage when God manipulates the natural world not immanently nor in person, but by changes of wind, sun or temperature, often as 'the Word', commanding the world as its center."⁹ This is opposed to 'mystical artificialism' of the previous stage in which causation is "due to human or divine agency".¹⁰ Thus instead of God doing it himself in superhuman ways, he causes things to happen by moving his creation about.

This conception is consequently carried over to Jesus in the form of magic. Jesus is primarily seen as a miracle worker. Although he is also conceived as a normal boy, and a nice man. It is easy for preadolescents to get

⁹Ronald Goldman, Religious Thinking from Childhood to Adolescence (New York: Seabury Press, 1964), p. 113.

¹⁰Ibid., p. 114.

stuck on the miraculous occurrences. Little seems to be known of childhood Christologies.

The magico-miracle perspective is carried over and crystallized in the child's conception and use of prayer. Positively, prayers have become more altruistic and focus on a better life. Yet, the efficacy of these requests is seen semi-magically. Andre' Godin has delineated three qualities of the magical mentality. The first is automatic causality between sacral sign and spiritual effect. Secondly, "a relation of causality between a sacrament received and certain wonderful effects of a natural order." And finally, "...general confusion between the sign and what it signifies."¹¹

In a test using these criteria, Godin attempted to graph the development of children's growth from magic mentality to sacral mentality. His results show that at eight years old children score high on the scale of magic mentality, with little standard deviation. Eleven year olds, with whom we are concerned, showed the widest deviation in response, while remaining primarily in the middle of the graph. Godin characterizes the results. "It is at this age that the transition manifests itself most clearly

¹¹"Some Developmental Tasks in Christian Education," in Research on Religious Development (New York: Hawthorn 1971), p. 131.

in the test response."¹² He continues,

It seems evident to us that many of the responses of children 8 to 11 years old in this test can be explained by the characteristics of a child's mode of thinking: causality by participation, intellectual realism, and operational thinking.¹³

Prayer for the preadolescent is "...a means of obtaining material or psychological advantages."¹⁴ A prayer's effectiveness is "obtained by intermediaries working in material things."¹⁵ Unanswered prayer is handled by contending that the prayer was unfitting, i. e., selfish advantage, greed, or personal limitation. From this attitude we can also see the preadolescent conception of guilt. Guilt is specific and concretely related to a situation or act. It is not conceived of as a general condition.

The interpretation and understanding of religious ideas is thus configured by the preadolescent in light of a concrete operational mode of thought. From this mode of thinking a dualism emerges in traditional images. The move toward the logical is held in tension with concrete habits. Thus in confronting the world, he or she creates side by side two different systems. Goldman suggests,

This is the time from nine to thirteen years when a dualistic way of looking at God's activity in the

¹²Ibid., p. 133.

¹³Ibid.

¹⁴Ibid., p. 134.

¹⁵Ibid.

natural world begins, one theological and one scientific. He holds strongly to many of his infantile ideas in thinking of God intervening in the world in an arbitrary fashion but his growing awareness of scientific matters begins to create a divergence in thinking. At nine this is only beginning but by thirteen it has been organized into a dualistic system of thought.¹⁶

As we have seen, the scientific system has influenced the religious system by closing God off from certain spheres of causation, i.e., superhuman to supernatural action. This solution is still not adequate for the preadolescent but further solutions are seemingly beyond reach. Having grown beyond fantasy, the nature of the material world is now an opportunity as well as a stumbling block.

Before moving on to consider the needs and interests of preadolescents, it will be helpful to review some of the keys of cognitive development. First, it is important to underline the importance of language in the process of cognition. It is a medium for speaking about the world as well as a tool for perceiving the world. Preadolescents have not yet mobilized all the structures of this tool. This point has been made here by Bruner.

Within the sphere of the stages of cognitive capabilities it is important to highlight two points. The data to be taken account of regard both new abilities and limits. Among the abilities are the move past egocentricity,

¹⁶Goldman, p. 135.

the move toward superordinate and analytic categorizing, reversible operations, and moving to a more relative understanding of relational terms. These capacities are held in tension with habits of childhood which tie the preadolescent to the concrete. Among these limits, we have seen concretization of propositional symbols, limits to hypothesizing, mechanistic causation, and isolation in time.

Secondly, the data to be taken account of in traditional religious thinking are tied to the effect of concretization, that is, dualism. This dualism is seen in the tension of religion and science manifest in attitudes toward the Bible, God, Jesus, prayer, and guilt.

These cognitive features will need to be present in the decision making process when developing life issues, goals, objectives, themes, and means for making available resources.

AFFECTIVE NEEDS AND INTERESTS

It is now important to consider the context of lively world issues within which these abilities are acted out. The context is highly correlated to the abilities and limits of cognition. Social and personal life is highly dependent on cognition for interaction with one's environment. Needs and interests interact as foci of energy. In reviewing preadolescent activities, two important areas of growth emerge; the natural world (environmental

relations), and social and personal relations.

Social and Personal Relations

The area of social and personal relationships is greatly expanded during this age. We find during this period that the move from egocentrism and the move toward increasing independence converge. This gives a new configuration of relational patterns. The preadolescent is now able to deal with others with empathy, for he or she no longer assumes the other knows what he or she knows. The increase in separation from parental control also opens channels for new trusting relations.

For the preadolescent, the need to belong emerges as a focus of concern. A basic need is the experience of a supporting community. Much anxiety is released in new relations outside the home through the sharing of common feelings. Goldman suggests that though there is marked increase in assurance, "a growing awareness of the insecurity of life is seen in prayers for protection."¹⁷ The ambiguities of parental relations are central to the preadolescent's life issues.

Increasingly, as the child moves away from his former relatively exclusive ties with his parents during the early school years, he also needs a compensatory

¹⁷ Ronald Goldman, Readiness for Religion (New York: Seabury Press, 1970), p. 135.

feeling of belongingness in a peer group in which he can feel comfortable.¹⁸

For example, "The discovery that other boys are also angry at their fathers or are concerned with sexuality relieves tension and guilt."¹⁹ Thus, while the need for a supportive community is always present, the configuration of factors and the capabilities for relationships form a distinct world of peer and social relations. Adults provide support and prospective role images and models. Yet central is the expanded significance of peer relations.

Let us consider three characteristics of preadolescent peer groups. First, sex differentiation is coming to the fore and reflected in grouping rigidly along sex lines. Secondly, peer groups in this age also witness changing patterns of loyalty. Relationships seem to be periodic and based on needs and concerns of the moment. Trying on relational skills is part of the growing edge of these activities. There is evidence too that peer associations often follow mental capabilities. Finally, rules for regulating group life are held less rigidly but still avidly. The focus of the rules is pragmatically upon maintaining good relations. There is still some perception of rules as necessary as something a priori given.

¹⁸Mussen, Conger and Kagan, p. 577.

¹⁹Ibid., p. 573.

Erik Erikson makes some distinctive contributions to the meaning of this need to belong in his system of life stages based on psycho-social development. In terms of identity development, the preadolescent crises center around the polarities of "industry" versus "inferiority". By extending the social world past the immediate familial ties, the preadolescent expands the base for expression of industry. "The[child] has experienced a sense of finality regarding the fact that there is no workable future within the womb of his family, and thus becomes ready to apply himself to given skills and tasks."²⁰ The value of 'competence' in the use of social tools in the presence of 'tool partners' is central in identity establishment and the toning down of infantile inferiority. Erikson defines competence "as the free exercise of dexterity and intelligence in the completion of tasks unimpaired by infantile inferiority. It is the base for workmanship and cooperative participation."²¹

On one side, then, the danger to the child, "lies in a sense of inadequacy and inferiority. If [the child] despairs of his tools and skills or of his status among his tool partners, he may be discouraged from identification with

²⁰Erik Erikson, Childhood and Society (New York: Norton, 1963), p. 259.

²¹Erik Erikson, Insight and Responsibility (New York: Norton, 1964), p. 124.

them and with a section of the tool world."²² On the other side, the child may become completely identified with his or her tool capacity. The child can, "become a slave of his technology and of its dominant role typology,"²³ and be absorbed. In between the poles, the child finds a sense of self worth in meaningful cooperation and participation with social partners.

The Natural World, Environmental Relations

The second area of interest to preadolescents is that of the natural world. It may be helpful to consider this area as the field of environmental relations, as distinguished from social relations. In the findings of Godin, Goldman, Loomis, Madge, and Piaget, this area is the focus of much attention and confusion. Violet Madge observed children and gathered questions and responses. She finds that the main topics "...concerned objects in the environment, the universe, animals and plants, human beings and religion."²⁴ Questions ranged from "How do colors of sunrise get into the sky?" to "Why do you jump when you get a shock?"²⁵

²²Erikson, Childhood and Society, p. 260.

²³Erik Erikson, Identity, Youth and Crisis (New York: Norton, 1968), p. 127.

²⁴Violet Madge, Children in Search of Meaning (New York: Morehouse Barlow, 1966), p. 44.

²⁵Ibid., p. 45.

Curiosity concerning the world of environmental relations is also manifest in the preadolescent tendency to gather details. Goldman states,

Many late juniors and early secondary school pupils delight in collecting objects. It is a peak period for collecting stamps, pictures, pebbles, coins, autographs and other things. The pupils approach to knowledge is not unlike this accumulation of objects, the amassing in detail of facts to be stored or later related to each other.²⁶

The interest in, and need to feel capable with, the object-filled environment is related to concrete operations. The preadolescent approach to environmental relations focuses on the realistic and on the specifics of nature.

Yet, according to Violet Madge, preadolescents are also able to experience the value and awe of nature. In moments of clear immediate experience, "children may enter into that unconscious intercourse with beauty when the realms of normal sensibility are transcended."²⁷ This intuition is correlated with Bruner's idea of the enactive and Piaget's idea of verbal decalage. Not only is the specific and concrete seen, but in a more poetic sense the preadolescent can feel the unity of an occasion. As we have seen, they can not verbally conceptualize this feeling. An intuition is therefore extremely illusive. Still, much future spontaneity rests on the ability to feel despite the

²⁶Goldman, Readiness for Religion, p. 131.

²⁷Madge, p. 63.

lack of adequate expressive tools.

We have talked previously of preadolescent dualism in the coexistent worlds of religion and science. It is time for us to isolate this as a major interest and concern for the child. They are indirectly curious concerning the relation of these two worlds, although they are not usually capable of categorizing the issue so. In dealing with the "Why's" and the "How's" of their experience, there is a tendency to be dissatisfied with the solutions they manage. They are concerned with the disparity but have not the cognitive tools to handle it in a propositional manner. Madge is hopeful that a new sensitivity to mystery in the workings of nature may bring the two worlds together. Preadolescents have, "a lively curiosity in the world about them which may afford openings for both religious and scientific education, as well as points where integration may take place."²⁸

To review the findings in this part concerning needs and interests, there are two emergent fields of life issues for preadolescents. The first is social and personal relations in which the need to belong to an extended supportive community is manifest. Secondly, the preadolescent is growing in awareness of environmental relations, in which the mixture of concrete fact and value pose a problem and an opportunity for the unity of experience. Now, with the two

²⁸Ibid., p. 103.

parts of abilities and limits, and needs and interests explored we are able to conclude this process of defining a starting point for education with preadolescence.

CONCLUSIONS

The purpose of this chapter has been to review the findings of developmental psychologists as they have perceived the preadolescent. This has been done with the contention that in constructing Christian education the whole of the educational process must be accountable to the abilities, limits, needs and interests of children. To conclude this chapter let us consider the findings of Developmental Psychology, the needs which emerge from this, and the direction to be taken in ministering to these needs.

To summarize the findings of this chapter we may note that the preadolescent world is characterized by significant growth and the new boundaries which it exposes. The preadolescent has mastered the technologies of growth, identified by Bruner, to a new degree. The ability to perform operations, to approach the world realistically, are significant strides. However, according to Piaget the nature of concrete operations also implies a limit to abstract or propositional material. In religious thinking these limits are primarily manifest in a deterministic or mechanistic view of causation. But these limits are revealed by a new acknowledgement of the objective, as opposed to the previous

state of fantasy.

In the area of affective development, two issues predominate preadolescent development. First, the move past egocentrism has enabled a new appreciation of social relations and opened a new sphere for the development and expression of competence. Secondly, we have discovered that the natural environment is a confusing phenomenon for preadolescents.

Out of this process we may contend that what preadolescents need is to deal with their life issues within the cognitive boundaries of their developmental stage. Specifically, preadolescents need to belong, to feel a part of a group in which they are important. And again, they need to come to an understanding of the environment which avoids determinism and mechanism, while affirming causality itself. Causation, as perceived in the stage of concrete operations, leads to a polarization of religion and science into dual modes of experience. Therefore, Christian education with preadolescents must be informed by a vision of reality which acknowledges the unity of experience and the centrality of belonging.

The next step in the ministry of education is to consider a systematic understanding of experience which can inform and undergird preadolescent development. Our task is not to provide a temporary solution which must be contradicted or unlearned as the child moves to propositional

thinking. A systematic approach to reality is necessary to provide a basis for subsequent reflection. Process Theology provides the most coherent systematic understanding of experience available. As such, it provides a viable resource for responding to the preadolescent life issues. It is my hope to have uncovered these issues or needs in this chapter. In the next chapter it will be important then to investigate Process Theology with an eye toward its application to the life issues of preadolescents.

CHAPTER III

PREADOLESCENTS AND PROCESS THEOLOGY

INTRODUCTION

Preadolescents look at their world with wonder. In various ways they seek meaning amidst the flow of their experience. The task of Christian education is to guide and enrich this search by creating an environment within which the child can integrate the Christian Faith-Perspective. The Christian educator must ask, "What ideas and assumptions underlie the experiences which can foster growth and integration and provide a basis for subsequent reflection?" This question lies at the center of the purpose of this chapter. It is my contention that Process Theology offers a significant reconception of reality on which Christian Education may base its development of learning experiences.

In the previous chapter the cognitive and affective context for education with preadolescents was set forth. As we begin to consider the channels by which we might relate Process Theology to preadolescents, two recommendations emerge. One is the need to be accountable to the level of abstractions to which this age is open. A cognitive limitation already identified is 'concretization'. This is the

tendency to perceive that which is abstract as a thing. Consequently, due to the propositional nature of the process theological discussion of God, I have chosen not to focus on God in this project. This would be a worthwhile and significant endeavor but would require much more space than is possible in this project.

The second recommendation is the need to focus on the two fields of social and environmental relations. The field of social relations opens up the issue of individuality and community. Here, Process Theology may speak both to the individual sense of worth and the valuableness of that worth being acted out in community. Preadolescent interest in environmental relations involves the growing alienation of religion and science. A task for Process Theology then is to bring the preadolescent world back into a unity without depreciating science or religion.

In this chapter the purpose will be to clarify Process Theology and to discuss its relevance to preadolescent growth in Christian faith. This chapter is therefore divided into two sections. Initially, with attention to those features which are appropriate to preadolescents, three aspects of Process Theology will be considered. First, it will be illuminative to consider Alfred North Whitehead's understanding of experience or the concrete as a basis for theology. Secondly, in discussing four characteristics of reality which emerge from this system, the

work of Daniel Day Williams will be introduced. Williams uses Whitehead's philosophy to reconceptualize love as the central experience of Christian faith. The third aspect is to explore the implications for traditional Christian theology. Here, the church has been identified as an appropriate tradition for considering preadolescent faith development.

Subsequently, in the second section of this chapter, this groundwork will be tailored into directions for a pre-adolescent theology. The intent of this section is to more narrowly consider the appropriateness and relevance of the insights derived from Process Theology for preadolescents.

PROCESS THEOLOGY

Prehensive Unification

The basic question then which the preadolescent tendency to concretize arouses is, "What is concrete?" Whitehead begins by suggesting that the answer lies in our apprehension of immediate experience. If we look closely at our own experience of the world we become aware that this experience has the character of drops or pulsations. Our immediate experience has a moment of lively subjective existence and then another replaces it. One's attention moves from a memory of someone, to the feelings that memory arouses or to the surrounding room. Each moment of

experience becomes and then perishes. Once it has enjoyed its subjective existence an occasion of experience becomes part of the world from which future experiences emerge. Whitehead contends that, "...nature is a structure of evolving processes. The reality is the process."¹ Thus, what is concrete, is the process or becoming of immediate experience.

How is this experience constituted? In order to experience something, one must feel it. Feeling is a way of receiving and including into one's becoming that which stands outside. It is a way of receiving past occasions into the present. These feelings constitute the evolving experience. Unfortunately feeling has too many connotations which are not conducive to this understanding. Whitehead has therefore used the term "prehension" to convey the process of feeling, or grasping into oneself.

Through its prehensions an experience in the process of becoming "takes account of" the relevant data which surround it. Therefore, an experience is a pulling together, or 'concrescence', of diverse feelings or data. "Now when we examine an occasion of experience we find the objects as together, or grown together into a unity of experience."² Further, then, experience is constituted

¹Alfred North Whitehead, Science and the Modern World (New York: Free Press, 1953), p. 72.

²Ivor LeClerc, Whitehead's Metaphysics (London: Allen and Unwin, 1958), p. 126.

through the process of prehensive unification.

As there is a togetherness, to experience, so there also exists a "for itselfness" or 'seperative' quality. A prehensive occasion is a unit which stands apart from other occasions. Like an organism, it is not divisible, except in abstraction, without changing what it is in its immediate liveliness. A cell is not just a collection of protoplasm, membrane, nucleus etc., but there is this configuration of reality from this perspective, at this moment and no other.

According to Whitehead, "The actual world is a manifold of 'prehension', and a 'prehension' is a 'prehensive occasion': and a 'prehensive occasion' is the most concrete finite entity, conceived as it is in itself and for itself..."³ In returning to our basic question then, the concrete world is constituted in the process of prehending organic occasions of experience. Our common sense conception of the world as that which is solid, independent, unrelated, and static leads to a system of inanimate bits of matter accidentally colliding with each other and constituting change. This view witnesses to the aggregate structure of societies of occasions. Opposed to viewing the aggregate as the most concrete, Whitehead's understanding of the actual emphasizes the relational, interdependent,

³Whitehead, p. 71.

subjective and processive character of experience. In light of the Christian affirmation of intentionality, freedom and community, Whitehead offers a more coherent foundation.

Four Characteristics of Reality

Let us follow the implications of this process understanding of reality as drawn out by Whitehead and Daniel Day Williams. Four characteristics of reality emerge from the previous discussion. These characteristics will be juxtaposed as each is considered by Whitehead and Williams.

Initially, we are drawn in our experience to individual things. Yet in this system, individuality is given a new significance. It is not the static entity which is unique, but the subjective configuration of prehensions in one moment of experience. For Whitehead, that which becomes actual is valuable.

Realization therefore is in itself the attainment of value. But there is no such thing as mere value. Value is the outcome of limitation. The definite entity is the selected mode which is the shaping of attainment: apart from such shaping into individual matter of fact there is no attainment.⁴

Each prehensive occasion being this specific configuration of reality is a unique attainment of value. Therefore, although a moment of experience is constituted through its relationships, it is nevertheless a unique and valuable

⁴Ibid., p. 94. Underlining mine.

occasion for itself.

In his understanding of Christian communion, Williams contends that love requires individuality. As a center of experience, each person is some one special in each moment.

If I am loved merely as one who illustrates a general type, then I know I am really not loved at all. I dissolve into a universal who is 'loved' by another universal. But persons are not universals, they are unique and irreplaceable subjects who exemplify abstract universals, but whose being is never wholly contained by them.⁵

A person is valuable for his or her specificity. Each person brings to a new occasion a special configuration of past experiences and present aims. Thus, Christian love as communion requires distinct centers of experience, what Martin Buber calls an 'I - Thou' relation.

The second characteristic, freedom, is a necessary factor in the constitution of a prehensive occasion. Our experience is not totally determined by the world around us. In the process of taking account of the objective world, an occasion makes choices concerning the unification of its prehensions. The choices are guided by the 'initial' and 'subjective aim' of each occasion. The aim as developed by Whitehead is the guiding 'idea' of an occasion. More could be said but what is important here is that experiencing is an act of self-creation. "The self-causation of an

⁵Daniel Day Williams, Spirit and the Forms of Love (New York: Harper & Row, 1968), p. 114.

actual entity implies that it embodies its own 'decision' as to what it is to be."⁶ Thus, freedom manifests itself in intentionality in the movement of actuality. In this way, freedom also entails responsibility. If in our choices we decide what we become then we are responsible for being what we are.

Although love must take account of its context and history, Williams finds that freedom is a condition of love. Our choices are made in the presence of other persons. Freedom must be acted out in the historical movement of the objective world. But communion is not determined by the past objective world. Between the past and the future the lively present experience provides a space for decisions as to the course of one's existence. "We learn what it means to love not from initial attraction but from the decisions which have to be made in the new life history into which love bids us enter."⁷

Freedom implies an openness to the future. The other side of openness is the risk which emerges from acknowledging the freedom of the other. Williams comments on this risk.

The decisive point concerning freedom is that if in love we will to be loved by another, then we must will the

⁶LeClerc, p. 172.

⁷Williams, p. 116.

others freedom to love or not to love. Nothing is more pathetic than the attempt to compel or coerce the love of another, for it carries self-defeat within it. That which is coerced cannot be love, hence in love we will that the other give his love freely.⁸

Communion entails the adventure of freedom.

Thirdly, relativity or sensitivity, is the single most important characteristic affirmed by Whitehead to be drawn from here. A prehensive occasion is essentially related to its environment by definition as a 'pulling together'. The world of experience is 'intimately intertwined'. Its relations are internal and essential. As it includes other occasions, the emerging occasion reflects aspects of those occasions. Interrelatedness is therefore universal. As Whitehead points out, "In a certain sense, everything is everywhere at all times. For every location involves an aspect of every other location. Thus, every spatio-temporal standpoint mirrors the world."⁹ The totality of reality is present to the experience of each occasion.

In discussing the English poet William Wordsworth's perception of nature, Whitehead reveals the aesthetic depth of this interrelatedness.

It is the brooding presence of the hills which haunt him. His theme is nature in solido, that is to say, he dwells on that mysterious presence of surrounding things, which imposes itself on any separate element that we set up as an individual for its own sake.

⁸Ibid.

⁹Whitehead, p. 91.

He always grasps the whole of nature as involved in the tonality of the particular instance.¹⁰

In this way an occasion can not stand alone. In speaking of that which endures Whitehead states, "...it is not self-sufficient. The aspects of all things enter into its very nature. It is only itself as drawing together into its own limitation the larger whole in which it finds itself."¹¹ Recalling the previous characteristics we can put this relativity in perspective. The individual occasion is not a thing which encounters others. It is a process of feeling which is freely united into an organic whole.

Williams appropriates this conception of relativity in his understanding of 'action' and 'suffering'. The risk of love is the act of movement toward the other, the act of feeling the world. The process of inclusion or sensitivity, which Williams calls suffering, flows from this feeling. "Suffering in its widest sense means the capacity to be acted upon, to be changed, moved, transformed by the action of or in relation to another."¹² Relativity means for love the enjoyment of sensitivity. Sensitivity is the degree to which we allow others to be a part of our decisions. Williams echoes the apprehensions which Whitehead found in

¹⁰Ibid., p. 83. Underlining mine.

¹¹Ibid., p. 94.

¹²Williams, p. 117.

Wordsworth. "The power to act is a condition of love: but it follows that the capacity to be acted upon, to be moved by another, is also required: for to act in love is to respond, and to have one's action shaped by the other."¹³ Love implies a style of relating by which one's becoming is influenced by another. By feeling the other, being sensitive to another's value, one includes in one's self-creation, aspects of that person or experience. In Christian language we speak of love as reconciliation. Christian communion requires bridging our brokenness through sensitivity in which one's actions are touched by another.

This quality of love leads us to our fourth and final characteristic, causation. Upon completion an occasion of experience becomes part of the objective world of data from which subsequent experiences draw. In this way each occasion of experience 'makes a difference' to other occasions as it is 'felt' and included. The activity of causation is not only with the data which must be prehended, but also with the new occasion while in process. Thus causation is neither mechanistic nor deterministic.

Accordingly, nature is a process of expansive development, necessarily transitional from prehension to prehension. What is achieved is thereby passed beyond, but it is also retained as having aspects of itself present to prehensions which lie beyond it.¹⁴

¹³Ibid.

¹⁴Whitehead, p. 119.

Thus the new world emerges out of the old carrying with it the past but always in new forms.

Love too is a process of expansive development. Williams contends that, "Love implies that there is a causal relationship which is compatible with freedom and with concern for the other's freedom."¹⁵ Whitehead's understanding of the process of causation provides the necessary bridge. As one's immediate experience of love passes into the objective world of fact, it becomes part of the data to be felt by new occasions. It is central to the Christian faith that each one of us in our own unique way 'makes a difference' in the history of love. In so constituting ourselves in risk and concern for the other, we cause the other to respond to this configuration of data and not another. For Williams, "The discovery that we are loved does have a causally efficacious power which creates through that experience the transformation of the self."¹⁶ The history of love is the history of such transformations in which communion is remembered and reformed from moment to moment.

In summary, Whitehead's understanding of the concrete nature of existence is represented in the four characteristics. The world is constituted in individual moments of experience. Secondly, experience witnesses

¹⁵Williams, p. 119.

¹⁶Ibid., p. 120.

choices. Thirdly, each moment of experience is internally and essentially related to all other moments. And finally, each occasion makes a difference to the future. Williams . has drawn on each of these characteristics to inform his discussion of love. His conception of communion is expressed in four statements from the perspective of an occasion of experience as subject. I am unique. I can choose. You are part of me and I of you. And I am important for I make a difference. Love is always understood as communion, a coming together. The emergent theme here is that life, as a process of becoming, is lived in communities. Our next task will be to locate in Christian Theology the most relevant experience for preadolescents.

Christian Community: The Church

If we are to speak with preadolescents from the perspective of Christian faith, we need to identify an experience exemplifying this living community. Remembering the concrete perspective of preadolescence, the concrete experience of community we can point to is the Christian community: the Church.

Theologically, the church is the community which centers itself in the experience of Christ to see how God calls us to communion. If we conceive communion in terms of individuality, freedom, relativity, and efficaciousness then, according to Williams, God's will for humanity is

directed towards communion.

God wills communion on terms of man's real freedom and responsiveness. It is to know that the love God offers is responsive love, in which he takes into himself the consequences of human actions, bears with the world, and urges all things toward a society of real freedom in communion.¹⁷

Where then can we locate this communion to which we are called? It has been the claim of the historic Church that Jesus Christ has lived out God's will to communion. Jesus' love was acted out in relationships exemplary of freedom and sensitivity. Admidst betrayal and persecution, Jesus acted in absolute loyalty to the community of being. "Jesus' suffering witnesses to God's love bearing with His world. It is an act of human loyalty which discloses the divine loyalty."¹⁸ This disclosure of God's will to communion creates, according to Williams, a new context for humanity's response to God's call.

The new community which emerges out of this experience is constituted through remembrance of Jesus' loyalty. The Church then, is a community of memory. In the present act of remembering, we include orprehend Jesus' life of communion in the present occasion of experience. Christ makes a difference.

Thus the Church is created out of the experience of Christ's enactment of communion. This is not a static

¹⁷Ibid., p. 137. Underlining mine.

¹⁸Ibid., p. 182.

attainment. "This reconciling action continues and is known wherever God's love transforms the disfigured life of humanity with the power of a loyal and forgiving spirit," Williams continues, "...the Church exists by continual participation in the reconciling action of God. In the moments of our experience we are called to new expressions of communion."¹⁹ As we have considered previously, "Christian existence is never isolated existence."²⁰ It is an existence which recognizes distinct individuals who are essentially related. The Church is a community of persons who out of their historic experience seek to act out what communion is in the ongoing process of life.

DIRECTIONS FOR A PREADOLESCENT THEOLOGY OF COMMUNITY

The purpose of this section is to discuss the ideas and experiences which may be explored with preadolescents, keeping in mind their needs and interests and cognitive abilities and limitations. Setting the process understanding of community in the context of the needs and interests of preadolescents results in an exciting cross-match between resource and need. As we have discovered in the previous chapter, the preadolescent needs are focused in two areas.

First, the physical world of nature sparks a lively

¹⁹ Ibid., p. 187.

²⁰ Ibid., p. 188.

curiosity which is not yet capable of an easy resolution. Secondly, the peer and social world is opening up to new possibilities for meaningful relationships. Process Theology, as has been presented here, provides an organismic basis for a new appreciation of both. The central theme which emerges from this interface is "Life lived in Communities." From the feelings of an electronic occasion of experience to the community of persons called the church, life manifests itself in communities. This theme can be approached in the two different areas of preadolescent development: environmental relations and peer and social relations.

Environmental Relations

In response to the preadolescent intrigue with the natural world, the environment can be explored as a living community. As we have seen, this community is made up of individual, unique members which realize a certain value for themselves. As Violet Madge has suggested preadolescents experience wonder at the unity of nature and appreciation for its individual members. Freedom in nature is less visible yet there remains a degree of choice as to how one will be related. That they are related, however, is necessary. Their relationships are in fact the way they come to be. The power of the environment's interrelatedness can be experienced by the preadolescent in many ways. The present discussion of ecology emphasizes the importance of the

interdependence of our environment. Our actions regarding trees on a hill side 'makes a difference' to the soil conditions of the hill, while animals and fish in the nearby streams must 'take account' of underground water levels and vegetation. At this macroscopic or sense perception level, the preadolescent can see the result of organic interrelatedness.

This view of nature enables preadolescents to retain an open posture to the mystery which science seeks to explore till more adequate cognitive tools for investigation are acquired. It is a view based on the idea of prehension. In light of the cognitive limitations regarding abstraction and causation, the concept 'prehensive occasion' would be inappropriate. The processive nature of the organism might be lost as it would most likely be perceived as an object. However, the idea of 'prehension' itself, as feeling or the act of taking account, provides an appropriate basis for seeking relationships in nature. Thus, the preadolescent can recognize the process characteristics of reality and build an experiential base upon which his or her understanding of nature can develop.

Social Relations

In the field of peer and social relationships, the process conception of love as communion and the consequent understanding of the Church as the ongoing center for the

realization of communion, are significant aids for pre-adolescent nurture. In summarizing Williams' understanding of communion four "I" statements were suggested which are extremely congruent with preadolescent need orientation. As the preadolescent emerges out of childhood egocentrism, it is even more important to have a positive view of one's own individuation. That "I am unique and valuable", as this particular individual and no other, is central in testing out the mutuality of peer relations. Secondly, freedom of choice within one's community is an affirmation at this age of increasing separation from parental control. Enabling the preadolescent to exercise his or her choices and options and reflect on their results is an essential growth awareness. It follows, thirdly, that "I am important for I make a difference." The preadolescent quest to make an impact on the world implies the expression of industry or competence as Erik Erikson has suggested. The realization that "I make a difference", just by being what I choose to be, diffuses the powerful feelings of inferiority which so often curtail competence.

Competence, freedom, and uniqueness only happen moment by moment in the process of relating. It will be important then, for the preadolescent to explore the meaning of community, in identifying ways in which "You are a part of me and I of you." The child's awareness "that you're caring about me makes a difference to me" is an existential

experience of what it means to 'take account' of orprehend. These conceptual and experiential tools can be used to develop skills for building loving relations, community.

The Church

It may be posed to the preadolescent that when we act out this communion in our relationships we are being the Church. Support can be drawn in identifying themselves as part of this Christian community. The Church can become a living community of persons who are seeking to act in love with one another. In constructing a learning environment for the preadolescent it is this present experience of community which is central.

Previously, the Christ event was posited as the constitutive experience for the Church. However, for the preadolescent the experience of Christian community must precede abstract theological reflection on the historic nature of that community. The idea of prehension can not transcend 'isolation in time' or the concrete cognitive configuration of preadolescent thought.

However, the understanding of the prehensive character of the Church does lay a basis on which God's and Jesus' presence within the Christian community can be developed. In order to make this connection more likely, it will be necessary to pose the idea that Jesus makes a difference to us, and allow that to germinate

at the preadolescent's own pace.

The cross-reference of characteristics from environmental to social relations is the basis on which the gap of science and religion can be bridged. Understanding life as the process of relating in communities, unites experience. Again, due to the difficulty with abstract analogies, it will be important to use specific examples of prehension in nature and society. Reliance must be placed on the intuitive experience of this unity rather than on cognitive appreciation of abstract relations. This intuition allows the preadolescent to avoid crystalizing an alienated perspective of religion and science. A fuller formed integration will need to await the conceptual tools of formal operations.

CONCLUSION

It was the purpose of this chapter to present an understanding of Process Theology which could be tailored to the preadolescent. The procedure undertaken explored first the foundation of Process Theology as developed by Alfred North Whitehead. Secondly, four characteristics which flow from this foundation were elucidated as relevant to nature and as used by Williams to reconsider love. Subsequently, the Church was identified as the appropriate target within Christian tradition for preadolescent reflection on Williams' understanding of community. Finally, the

relevance of these diverse considerations to preadolescent life issues was set forth.

In conclusion it can be said that Process Theology reaches deep into the affective and cognitive issues of preadolescence. Process Theology contributes both to the unification of experience in approaching nature, and to an undergirded appreciation of the expanded capacity for social relationships. The next task is to create the tools and activities for a learning environment which is informed by and makes available these themes, concepts and experiences.

CHAPTER IV

THE LEARNING EXPERIENCE

INTRODUCTION

The ministry of Christian education is the creation of an environment which is learning oriented, appropriate to the needs and abilities of persons, and responsibly grounded in Christian theology. To this point we have considered the later two. Our consideration of Developmental Psychology has attempted to define the cognitive abilities and limitations which preadolescents bring to the process of education, as well as the needs around which these abilities are focused. Considered in reverse, this has allowed us to draw from Process Theology relevant insights which can be tailored to their cognitive abilities.

In identifying the needs of preadolescents we were able to explore the insights relevant to the preadolescent concern with social and environmental relations. To these needs our consideration of Process Theology provided the concept of prehension and its implications for a preadolescent theology of community. Community, as defined in the previous chapter, pervades life at all levels. This idea can enable the preadolescent to consider the unity of

experience, the value of his peer relations and his participation in the church. All are significant contributions to their growth in Christian faith.

Through identifying the abilities and limitations, we are able to tailor the insights of Process Theology to the level of preadolescent thinking. The boundaries within which we must remain are characterized by preadolescent realism or concrete operations. We have observed that preadolescents treat processes as things. It will be important for the educator influenced by process thought, to counter this tendency. This means that language should be used carefully and not depended upon in itself to convey the organismic nature of reality. Due to this concrete interpretation of experience, there will need to be a reliance on the actual sensory world with a more subtle openness to the intuitive experience of value. Also, large scale analogies or models will not be usable. Thus, specific relationships and observations will need to be focused on. As we will consider later, these specific facts may represent the structure of intuitive principles existentially yet not verbally.

What now remains to be done is to create a learning environment which makes available the significant ideas and perspectives uncovered in Process Theology, while being accountable to Developmental Psychology. Thus, the purpose of this chapter is to describe a possible learning experience.

To this end two main sections will be presented. First, it will be necessary to consider the nature of learning before proceeding. Three aspects of learning will be considered: the nature of learning, the process of learning and teaching for learning. Secondly, a possible learning experience, including structure and activities, will be described.

LEARNING

According to James Michael Lee, "...learning itself is a hypothetical construct. By this I mean that learning is a reality which is presume to exist because it is inferred as a generalization from specific changes in an individual's behavior".¹ Klausmeir and Ripple consider the learning construct as "a process or operation" which is inferred from "relatively permanent" behavioral changes.² Thus learning is not itself visible, but is basically manifest in behavioral change.

Change does not just happen but is elicited by stimuli in the environment. Performance is the visible response to these stimuli. However, the response is not determined by the stimulus. In line with causation as

¹James Michael Lee, The Flow of Religious Instruction (Dayton: Pflaum Standard, 1973), p. 45.

²Herbert J. Klausmeier and Richard E. Ripple, Learning and Human Abilities (New York: Harper & Row, 1971), p.7.

conceived in Process Theology, learning is a process of choosing responses to the objective world. In speaking to the educator Whitehead contends that the learner is,

...a living organism which grows by its own impulse towards self-development. This impulse can be stimulated and guided from outside the organism, and it can be killed. But for all your stimulation and guidance; the creative impulse towards growth comes from within, and is intensely characteristic of the individual.³

We find this understanding also in Carl Rogers' book, Freedom to Learn. He lists "self-initiated" as an element of learning. "Even when the impetus or stimuli comes from the outside, the sense of discovery, of reaching out, of grasping and comprehending, comes from within."⁴ Thus learning as change is elicited, facilitated, or called forth, but emerges from the motivation of the individual.

The 'process or operation' of learning according to Jerome Bruner is the change or development of the underlying linguistic structure, "...the heart of the educational process consists of providing aids and dialogues for translating experience into more powerful systems of notation and ordering."⁵ Thus the process of learning is the pendulation

³ Alfred North Whitehead, Aims of Education (New York: Free Press, 1957), p. 50.

⁴ Carl Rogers, Freedom to Learn (Columbus, Ohio: Merrill, 1969), p. 5.

⁵ Jerome S. Bruner, Towards a Theory of Instruction (Cambridge: Harvard University Press, 1966), p. 21.

between the basic structure of a subject and its manipulation in experience. "Grasping the structure of a subject is understanding it in a way that permits many other things to be related to it meaningfully. To learn structure, in short, is to learn how things are related,"⁶ suggests Bruner. Whitehead echoes this assertion. "Let the main ideas which are introduced into the child's education be few and important, and let them be thrown into every combination possible."⁷ Learning is the process of integrating and expanding our experience and reflection on it.

Finally, the purpose of teaching is to facilitate learning. If we consider learning as manifest in behavior change, then, "The function of teaching is to most effectively elicit a desired performance."⁸ Lee suggests that such facilitation requires the prediction of the effectiveness of activities and the appropriateness of goals and objectives. Out of these effective stimuli a total learning environment must be created. Whitehead suggests the double function of a teacher is, "...to elicit the enthusiasm by resonance from his own personality, and to create the environment of a larger knowledge and a firmer purpose."⁹

⁶Jerome S. Bruner, The Process of Education (New York, Vintage, 1963), p. 7.

⁷Whitehead, p. 14.

⁸Lee, p. 45.

⁹Whitehead, p. 51.

Thus, constructing a stimulating learning environment which manifests the 'structure of a subject' and which enables the exploration of its significance, is teaching for learning.

LEARNING EXPERIENCES

The Task

The purpose for the remainder of this chapter is to develop possible learning experiences which communicate the significance of Process Theology. In the development of such learning experiences four important questions need to be considered. What are the main ideas and key concepts to be focused on in the light of Process Theology? What behavioral goals and objectives can be established which best lead to the integration of these insights? What learning experiences lead to the realization of these goals and objectives? What setting (structure and context) is suitable to these experiences? Our procedure, therefore, will be to follow the outline of these four questions. In addition, after a brief reflection of these educational procedures, a final statement regarding the course of this paper will be concluded.

The Main Idea, Goals and Objectives

The main idea which represents the basic structure of Process Theology as relevant to preadolescents is: Life is lived in communities in which all members are related to

each other.

The key concepts which explicate the quality of this idea are:

- freedom, everyone can choose,
- specialness, everyone is different and unique,
- importance, everyone makes a difference to everyone else, and
- sensitivity or prehension, everyone is part of everyone else.

If we conceive learning as an encounter with an intentionally structured environment, then it is necessary, both for the purpose of developing activities as well as testing their effectiveness, to define goals and objectives. The procedure of goal setting to be used is outlined by Norman E. Gronlund.¹⁰ First, it will be important to clarify the major goal orienting the structure of learning activities. Secondly the general objectives which are derived from this goal will be stipulated. After general objectives more specific objectives will be listed. Goals and objectives are stated in terms of what a child will be able to do.

The central goal I have chosen to approach in illustrating the theme "Life lives in communities" is:

- to experience and identify ways in which life is made up of communities.

Four general objectives are appropriate to this end.

¹⁰Norman E. Gronlund, Stating Behavioral Objectives for Classroom Instruction (London: Macmillan, 1970).

- to explore the world of nature as it is constituted by communities,
- to participate in community-oriented activities of the learning experience.
- to apply the key concepts to the church as a living community, and
- to participate in two activities correlated with each of the previous objectives.

Under each general objective several specific objectives may be suggested. Here is a list of possible ones several of which will be developed later into activities. In relation to the first general objective these specific objectives are appropriate.

- to chart the growth of a plant in relation to light,
- to report on a book on ecology,
- to construct a simulated environment displaying the inter-relatedness of nature,
- to discuss a film on nature's interrelatedness,
- to sculpture a feeling about nature,
- to grow crystals in an experiment,
- to see the effects on light of its context.

In relation to the second objective these specific objectives are appropriate.

- to choose which activities will be explored,
- to construct cooperatively a simulated environment which exemplifies community.

- to list the communities or groups we belong to,
- to role play peer relations exemplifying key concepts,
- to create a puppet show out of a book on peer relations,
- to identify the key concepts in a film about peer[•] relations.

In moving toward the third objective these specific objectives may contribute.

- to paint a picture of a Christian community,
- to discuss a film on what it means to belong to a community,
- to brainstorm about how Jesus makes a difference to this community,
- to listen to a record about the struggles of the early church.

Learning Activities

The next step is to suggest learning activities which aim at these objectives. The activities are divided into three areas; scientific experiments, reading, and media. These activities are structured to provide a means of encountering the key concepts through the objectives listed. After a brief description of each activity a statement of its significance will be included.

Experiments

Charcoal Crystal Experiment¹¹

Place several common charcoal briquets into a bowl filled with a solution of $\frac{1}{4}$ cup water, $\frac{1}{4}$ cup laundry bluing, $\frac{1}{4}$ cup table salt and a tablespoon of ammonia. Within the day crystals will begin to form on the top of each briquet due to the evaporation of water leaving salt structures, or crystals. If we understand nature as a pulling together or prehension, we can see the significance of this experiment in the process of these crystals coming together.

Rock Candy Experiment¹²

Add to one cup boiling water three quarters cup of clean granulated sugar, and stir till dissolved. Pour the cooled solution into a glass. Tie several strings to a pencil with paper clips to weight the strings. Place strings and paper clips into the solution laying the pencil across the glass. Within a few hours crystals will form on the strings. The significance of this activity is similar to the previous experiment except it tastes better.

¹¹Don Herbert, Mr. Wizard's Experiments for Young Scientists (New York: Doubleday, 1959), p. 55.

¹²Ibid.

Conditional Seedlings¹³

This experiment centers around the growth of pinto bean seedlings and their environment. Several seeds are placed in a glass jar between a piece of blotter paper and the glass. About a half inch of water should be poured into the glass. Several such jars are prepared and then put in various environments, i.e., near light, in the dark, or covered so as to get less air. The experimenter is to observe, chart and compare the growth of the seeds. This experiment illustrates, often in dramatic ways, how life is made of relationships. The seeds take account of the light and the darkness in their own growth process. Thus the environment imposes itself or makes a difference to the seedlings.

Wire Wax Experiment¹⁴

To see how interrelated a piece of wire is, obtain a bottle with a cork top and place a straightened paper clip across the cork. Hold this paper clip in place with a thumbtack. Using a lit candle, drop wax at several points on one end of the paper clip and allow the wax to dry.

¹³Rose Wyler, The First Book of Science Experiments (New York: Watts, 1971), p. 46-7.

¹⁴Nelson F. Beeler and Franklyn M. Branley, Experiments in Science (New York: Crowell, 1955), p. 73.

Now place the candle and light it under the opposite end of the paper clip. The observer will notice that the wax drops will not melt at the same time but successively. One can see that each drop of wax is related to the flame, as well as see the wire as a community passing on the heat from one member to the next.

Bending Light¹⁵

One way to bend light requires a jar with a metal screw cap, water, a flashlight and dark paper (carbon paper). Punch two holes in the screw cap so as to allow water to flow out freely. Fill the jar with water and affix lid to jar. Attach by tape the flashlight to the bottom of the jar and surround with the dark paper so light will not escape through the glass part of the jar. Turn the room lights off and the flashlight on, tip the jar over toward a sink or pail. The light will follow in the stream of water bending as it does. Thus, even light is related to its context.

Lemon Shocks¹⁶

A gamey type of experiment but one which illustrates a point involves a lemon, a paper clip, and a copper wire of

¹⁵Ibid., p. 7-9.

¹⁶Ibid., p. 13-15.

similar length. Stick the two wires into the lemon but don't allow either end to touch. What you have is like a battery cell. If you touch the two wires with your tongue, you will feel a slight tingle. This is because your tongue has closed the circuit. From our perspective what you have done is to complete the community of relationships which constitute the cell. Each of the four parts takes account of and makes a difference to the others.

Plants and Lights

For this experiment you will need a healthy, fast growing vine plant (sweet potato, potato, or pinto bean vine), a large box with a small (4" by 4") hole, and a light source (sun or sunlamp). Place the plant in the box with the light source facing the hole. Over a period of days the vine will grow toward the light. Turn the plant or box so that the light is coming from a new direction. If done over a period of time it would be possible to chart the movement of the plant. It is clear in this experiment how related these plants are to the sun. The plant takes account of the available light in making its decision on which way to grow.

Reading. In this section several possible reading resources are presented. A brief summary of each is presented along with a question list for use by preadolescents.

Some of the books have a correlate activity which is also suggested. The first three books deal with nature or ecology and the remainder are stories of children who must deal with issues of community life. These books are written for the preadolescent reading abilities.

Chain of Life: A Story of a Forest Food Cycle

by Patricia Collins

This book describes the links between animals and vegetation. It depicts the cycle of food in a forest beginning with a tree, moving to its immediate herbivores and continues through the carnivores and back to the tree through decomposition. The book stresses how each animal is intimately related to the other animals in its continuing existence.

Sample questions:

- How do the food source animals make a difference to their hunters? the tree to the squirrels? the mice to the weasel?
- Can you think of other examples of animals that make a difference to each other?
- How would the animals be effected if the tree were removed? or the insects? or the dead animals?
- How is this forest a community?
- What other key concepts can you see in this book?

Activity: Draw a picture of the cycle of life on a large paper.

Symbiosis: A Book of Unusual Friendships

by Jose Aruego

This is an enjoyable book about pairs of animals who perform helpful functions for each other, symbiosis.

Sample questions:

- How is one animal sensitive to its unusual friend?
- How does the key concept of importance fit these relationships?
- Can you think of other animals or people who need help or cooperation from others?
- Kind of friendships do you have that make a difference to you?

Activity: Using a sheet of paper list the unusual friends of the book in two separate columns, so that each friendship has one member in each column. Mix up the animals so one's friend isn't straight across from the other. Now ask a friend to see if he or she can match the real friends.

Understanding Ecology

by Elizabeth T. Billington

This book is a more generic view of ecology and its basic concepts. It gives a structure and procedure for exploring relations in the environment as well as explaining

and defining several biomes. Of specific reading interest for our objectives are Chapter Two Environment, Chapter Three Ecosystems, and Chapter Seven Communities.

Sample questions:

- What are some of the individuals that make up your environment? How do they influence you?
- How do you think those small things called bacteria or fungi make a difference to you?
- What does adaptation mean? Can you relate that to our key concept of sensitivity or prehension?
- Can you think of examples of ecological communities?

Activity: Explore your backyard and find the different members of your backyard ecological community.

A Garland for Gandhi

by Helen Pierce Jacob

In a small village in India a young girl, Tara, hears of the important social happenings of her time in relation to Gandhi and the British government. The problems seem so immense that she wonders how she can make a difference. Tara finds that through her own weaving she is contributing. Her importance really strikes home when Gandhi himself visits her village and a garland she has made is presented to him.

Sample questions:

- How can Tara make a difference according to her father?

- How do you think Tara is important?
- Where do you see the key concepts in this story?
- How do you make a difference to your community?

Activity: Create a gift, a garland or necklace, for someone as a symbol of their importance to you.

Other Side of the Fence

by Molly Cone

While visiting his grandmother Joey, a twelve year old boy, encounters the antagonism of his grandmother's neighbors to a Black family who have just arrived. The story portrays Joey's confusion at the people's behavior and his openness to the new family. The story moves to its climax in the stance which Joey takes when the Black family's fence is being painted black by a neighbor. Joey's courage motivates the previously silent members of the neighborhood to support the Black family.

Sample questions:

- How would you feel if you were Joey?
- What do you think Joey feels is wrong with the community?

What do you think?

- How are all the people responsible for the treatment of this family?
- How are other people influenced by Joey's actions? How does he make a difference?

Activity: With the help of a teacher or minister, start a penpal relationship with a person in a Black neighborhood. This could be done through a Black church's Sunday school program.

The Popular Girl's Club

by Phyllis Krasilovsky

This is a story of peer sensitivity and values. The main character vacillates between two groups of friends. One group is a very exclusive and popular clique which is shallow. The other group is constituted by unpopular but much more honest and straightforward people. The dilemma is handled sensitively and not moralistically. Through its development of relationships this story explores several barriers to community.

Sample questions:

- Who is most like you in this story?
- How do you like that?
- What choices does the main character have?
- How is she sensitive to people outside the club?

Media. The media of film and record is a third area of activities which could be used in reaching our goal and objectives. The medium of film is the basic concern, however one record is included. As done previously, a brief summary and the relevance of each media will be presented.

Baptism

by Teleketics

This dramatic and simple film portrays a boy in search of a new home or community. His family was lost in a fire and he was badly scarred. When he comes to a home for boys, the priest in charge places the decision of acceptance or rejection with the boys. They meet the boy and in the silence of the encounter one boy steps up and accepts the scarred boy. A celebration ensues. The film pictures clearly what it means to become a member of a community. The key ideas of importance and sensitivity are dramatically enacted.

Horton Hears a Whoby Dr. Seuss¹⁷

Due to his large ears Horton, the elephant, is the only one who can detect life, the Whos, on a small speck of dust. Horton is chided by his friends and finally is robbed of the speck. He makes great efforts to save the Whos thereon repeating "A persons a person no matter how small." When the speck is threatened with extinction by the other animals, the Whos do their best to make enough noise to be heard. Finally, when the last Who, who has

¹⁷A slide presentation as prepared by Mark Ulrickson.

been quiet, adds his voice to the noise, the sound breaks through and the Whos are heard and saved. This story is an allegory simply enacting Whitehead's philosophy. The story shows how important each individual is as Horton values the Whos. Despite its appearance to the other animals, that speck was significant for itself. Another point is the amount of difference that the last Who makes. It is that last voice which constitutes the full community of sound necessary to being saved. Each member of the Who community made a difference.

The Lorax

by Dr. Seuss¹⁸

The Lorax narrates the story of the progressive deterioration of an ecological community through the greed and insensitivity of a relentlessly industrious manufacturer. In successive stages the Lorax recounts how one after another animal is forced to leave their once paradisaal home due to the pollution which has broken necessary relationships. The Lorax shows the implications of Whitehead's philosophy for this life situation. Nature can not absorb everything but must take account of the actions of humanity.

¹⁸ Ibid.

Big Up Your Mind

A Record by Al Wickett

"Big Up Your Mind" is the growing story of the early church put in a contemporary musical setting. The title song, as well as others, focus on the meaning of community and place it in the context of the historical struggle of the Church. How will the church take account of or include gentiles and women? Can a person buy one's way into the community? What do forgiveness and reconciliation mean in the Christian community? These are some of the questions responded to in the lyrics of this musical.

Learning Setting

Context. The best context for these activities would be a church school setting with sufficient frequency to observe the progress of experiments, and of limited duration to enable a sense of continuity in relationships so community would more readily be experienced. One possibility then would be to meet everyday after school for one week. Another would be one session a week for five weeks. An hour and a half is a suggested time period.

Learning Centers. One style of education which would be extremely appropriate both to the learning activities presented and to the emerging preadolescent need to make decisions, is based on learning centers. A learning center is a designated area where an activity or cluster of activities can be performed by an individual or small group with a simple set of directions. The learning center approach evolves primarily out of the open classroom style of education. It is more non-directive in nature. The child has the opportunity to make choices, perform an activity, and draw conclusions.

From the activities listed above three learning centers could be developed. For example, an experiment learning center could be set up with the necessary materials, a set of directions, and a list of guiding questions to be considered upon completion. In addition, a media center and a reading center would be appropriate. This procedure allows the individuals' own interest to be a factor in motivation.

Possible Schedule. One may ask why a schedule if this is an open classroom approach. As was discussed in the "Process of Learning," learning takes place in the movement between ideas, experience, and evaluation or reflection. Learners may be introduced to new ideas, explore them, and then debrief their findings. Thus a

typical session would involve an introduction to the main ideas and key concepts, a period of experimentation and experiencing of concepts, and a chance to reflect and evaluate their findings with others. During this period of reflection attention may be focused on the church and its relevance to their Christian faith. This reflection must be in concrete terms and not a propositional correlation of systematic ideas. This is in agreement with our original definition of "faith" as a life orienting perspective. This last period of reflection can also be a time for those wishing to use crafts as a means for expressing their insights and share with the whole group.

Review of the Learning Experience

In reviewing this chapter, we will consider the purpose of this chapter, what has been done to realize this aim, and the outcome of this procedure. The purpose of this chapter was to develop a learning experience which would make available the resources of Process Theology as delineated in the previous chapter. This task is proximate to preparing a curriculum but not as refined. The process we have undergone to reach this goal has included two steps. First, learning itself was considered. In order to create experiences which would be intended to foster learning, it was necessary to explore what learning is. Thus, we considered the nature of learning, the process it

requires, and its function as orienting teaching. Secondly, this understanding undergirded the construction of learning experiences. In this endeavor our procedure attempted to clarify directions and provide appropriate stimuli. Therefore in review, this chapter has described an educational setting in which ministry to children can take place. This is the final step in the task of making available the resources of Process Theology and Developmental Psychology to preadolescents.

FINAL CONCLUSION

This project has emerged out of the desire to effectively minister to the development of preadolescents in Christian faith. The insights of Process Theology and Developmental Psychology have been identified as valuable resources to this task. Therefore, the purpose of this project has been to draw from Process Theology ideas and perspectives which are compatible with the findings of Developmental Psychology and propose learning experiences which would make these resources available.

This endeavor has been divided into three stages. We have explored the cognitive and affective development of preadolescents to determine the configuration of their life experience. In this discussion the limits to the level of abstraction available to preadolescents was noted and two foci of needs emerged; social relationships and

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the natural world.

The second stage explored Process Theology as relevant to the foci of preadolescent needs and interests and as circumscribed by the cognitive abilities and limitations. In this direction, the idea of prehension as constituting experience was presented as the basis for reconceptualizing nature and human community. The theological implications of this understanding were then applied to the Church, and translated into directions for education with preadolescents.

In the final stage these directions were translated into learning activities. According to the understanding of learning presented, these activities are part of a stimulating environment which facilitates learning reflected in behavioral change.

Thus, through this procedure the project has realized its purpose of making available to preadolescent education the resources of Process Theology and Developmental Psychology. What is most striking is the degree to which Process Theological insights are appropriate to the developmental stage of preadolescence. In conclusion, the introduction of these resources to preadolescents is a valuable task of ministry in the development of Christian Faith.

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